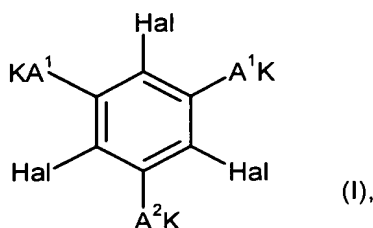


The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A metal complex of formula I



in which

Hal stands for bromine or iodine,

A¹ stands for

-CONR¹-(CH₂)_n-NR²-(CO-CHZ¹-NH)_m-CO-CHZ²-*,

-CONR¹-(CH₂)_p-(CONR²CH₂)_m-CHOH-CH₂-*,

-CH₂O-(CH₂)_p-CHOH-CH₂-*,

-CH₂-O-(CH₂)_n-NR¹-(CO-CHZ¹-NH)_m-CO-CHZ²-* , or

-CH₂-NR¹-CO-(CHZ¹-NH-CO)_m-CHZ²-*,

A² independently has the same meaning as A¹ or in the case that A¹ has the meaning first mentioned above can also stand for the radical-NR¹-CO-(NR¹)_m-(CH₂)_p-NR²-(CO-CHZ¹-NH)_m-CO-CHZ²-*,

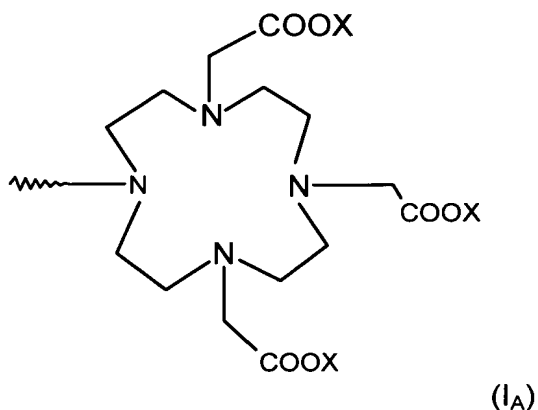
* designates the binding site to K,

R¹ and R² mean, independently of one another, a hydrogen atom, a C₁-C₂-alkyl group or a monohydroxy-C₁-C₂-alkyl group,

Z¹ and Z² mean, independently of one another, a hydrogen atom or a methyl group,

n means the number 2-4,

m means the number 0 or 1 and
 p means the number 1-4,
 K stands for a macrocyclic compound of formula I_A



with X meaning a hydrogen atom or a metal ion equivalent of atomic numbers 20-29, 39, 42, 44 or 57-83, provided that at least two X stand for metal ion equivalents, and optionally present free carboxy groups optionally are present as salts of organic and/or inorganic bases or amino acids or amino acid amides.

2. (Previously Presented) A metal complex according to claim 1, wherein A¹ stands for

- CONH(CH₂)_{2,3}NHCOCH₂NHCOCH(CH₃)-,
- CONH(CH₂)_{2,3}NHCOCH₂NHCOCH₂-,
- CONH(CH₂)_{2,3}NHCOCH₂-,
- CONH(CH₂)_{2,3}NHCOCH(CH₃)-,
- CONHCH₂CH(OH)CH₂-,
- CON(CH₃)CH₂CH(OH)CH₂-,
- CH₂OCH₂CH(OH)CH₂-,

-CONHCH₂CONHCH₂CH(OH)CH₂-,
 -CH₂NHCOCH₂-,
 -CH₂NHCOCH(CH₃)-,
 -CH₂NHCOCH₂NHCOCH₂-,
 -CH₂NHCOCH₂NHCOCH(CH₃)-,
 -CH₂O(CH₂)₂NHCOCH₂-,
 -CON(CH₂CH₂OH)CH₂CH₂NHCOCH₂-, or
 -CH₂O(CH₂)₂N(CH₂CH₂OH)COCH₂-.

3. (Previously Presented) A metal complex according to claim 1, wherein A² stands for

-NHCOCH₂NHCOCH₂NHCOCH(CH₃)-,
 -NHCOCH₂NHCOCH₂NHCOCH₂-,
 -NHCOCH₂NHCOCH₂-,
 -NHCOCH₂NHCOCH(CH₃)-,
 -N(CH₃)COCH₂NHCOCH₂-,
 -NHCONH(CH₂)₂NHCOCH₂-,
 -NHCOCH₂N(CH₂CH₂OH)COCH₂-, or
 -N(CH₃)COCH₂N(CH₂CH₂OH)COCH₂-.

4. (Previously Presented) A metal complex according to claim 1, wherein at least one X stands for a metal ion equivalent of atomic numbers 21-29, 42, 44, or 58-70.

5. (Previously Presented) A metal complex according to claim 4, wherein at least one X stands for a metal ion equivalent of gadolinium(III), dysprosium(III), europium(III),

iron(III) or manganese(II).

6. (Previously Presented) A pharmaceutical composition that contains at least one metal complex according to claim 1 and one or more additives suitable for use in a galenical formulation.

7. (Previously Presented) A method of x-ray diagnosis comprising administering to a patient at least one metal complex according to claim 1 and performing x-ray diagnosis.

8. (Previously Presented) A method of MRT diagnosis comprising administering to a patient at least one metal complex according to claim 4 for and performing MRT diagnosis.

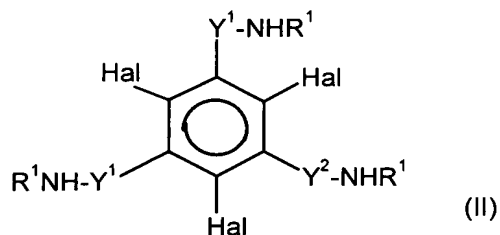
9. (Previously Presented) A pharmaceutical composition that contains a metal complex according to claim 1 in a molar ratio of 2000:1 to 1:1.

10. (Previously Presented) A pharmaceutical composition according to claim 6, wherein said at least one metal complex is dissolved or suspended in water or in a physiologically acceptable salt solution at a concentration of 0.001 to 1 mol/l.

11. (Previously Presented) A method for x-ray diagnosis or MR diagnosis of a cerebral infarction, a tumor of the liver, a space-occupying process in the liver, a tumor of the abdomen, a kidney, a muscle-skeleton system, or a blood vessel, comprising administering to a patient at least one metal complex according to claim 1, and performing x-ray diagnosis or MR diagnosis.

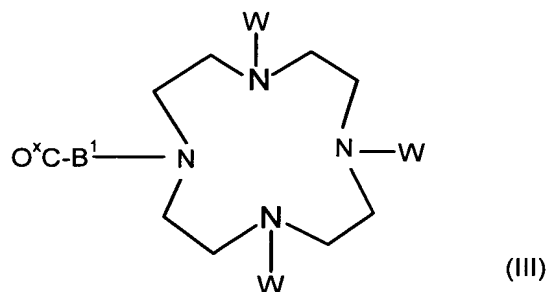
12. (Currently Amended) A process for preparing a metal complex according to claim 1, comprising

- a) reacting a triiodo- or tribromoaromatic compound of formula II



with a macrocyclic compound of formula

III



in which

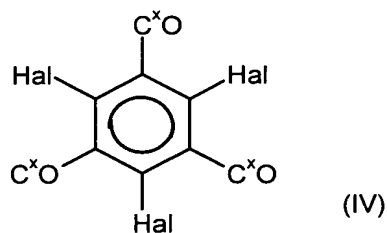
O^xO stands for a $-COOH$ or activated carboxyl group,

W stands for a protective group or a $-CH_2COOX^x$ group with X^x in the meaning of X as defined in claim 1 or a protective group and $-Y^1-NR^1-CO-B^1-$, which forms upon reaction of a Y^1NHR^1 group of a compound of formula II with the O^xCB^1- group of a compound of formula III, stands for the radical A^1 in the meaning of $-CO-NR^1-(CH_2)_n-NR^2-$ $(CO-CHZ^1-NH)_m-CO-CHZ^2-$ or $-CH_2-O-(CH_2)_n-NR^1-(CO-CHZ^1-NH)_m-CO-CHZ^2-$ and $-Y^2-$

$\text{NR}^1\text{-CO-B}^1\text{-}$, which forms upon reaction of the Y^2NHR^1 group of a compound of formula II with the $\text{O}^x\text{CB}^1\text{-}$ group of a compound of formula III, stands for $\text{-Y}^1\text{-NR}^1\text{-CO-B}^1\text{-}$ or for the case that $\text{-Y}^1\text{-NR}^1\text{-CO-B}^1\text{-}$ has the meaning first mentioned above, the latter also stands for $\text{-NR}^1\text{-CO-(NR}^1\text{)}_m(\text{CH}_2\text{)}_p\text{-NR}^2\text{-(CO-CHZ}^1\text{-NH)}_m\text{-CO-CHZ}^2\text{-}$,

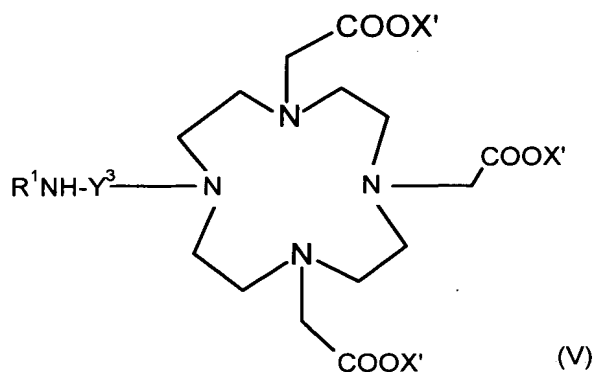
and then optionally removing protective group W and introducing the radical CH_2COOX , or optionally removing the protective group that stands for X' and then reacting with a metal oxide or metal salt of an element of atomic numbers 20-29, 39, 42, 44 or 57-83, or

b) reacting a triiodo- or tribromoaromatic compound of formula IV



with a macrocyclic compound of formula

V

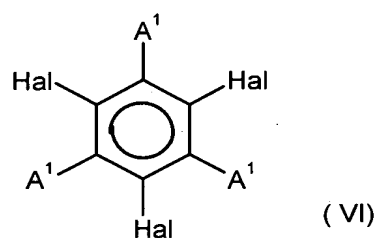


in which $\text{-C}^x\text{O}$ and X' have the above-mentioned meaning and $\text{-CO-NR}^1\text{-Y}^3\text{-}$, which forms upon reaction of the Y^3NHR^1 group of a compound of formula V with the $\text{O}^x\text{C-}$ group of a

compound of formula IV, stands for radical A^1 in the meaning of $-\text{CONR}^1-(\text{CH}_2)_p-$
 $(\text{CONR}^2\text{CH}_2)_m-\text{CH}(\text{OH})\text{CH}_2-$,

and then optionally removing the protective group that stands for X' and then reacting
 with a metal oxide or metal salt of an element of atomic numbers 20-29, 39, 42, 44 or 57-83,
 or

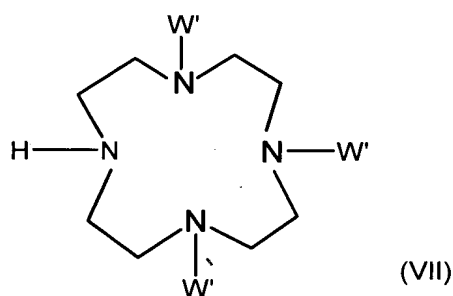
c) reacting a triiodo- or tribromoaromatic compound of formula VI



in which

A^1 stands for a radical $-\text{CH}_2-\text{O}-(\text{CH}_2)_p-\text{CH}-\text{CH}_2$,

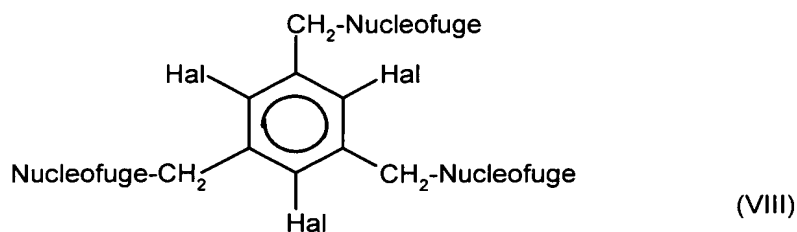
with a cyclene of general formula VII



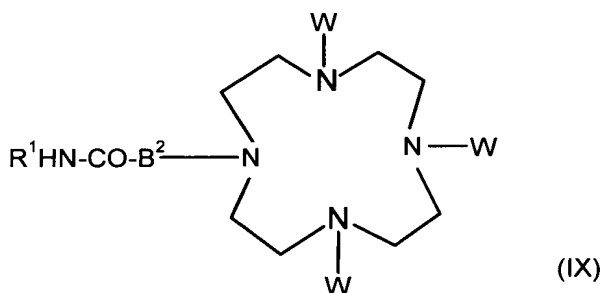
in which W' stands for a hydrogen atom or a protective group,

removing the optionally present protective groups and then introducing radical $-\text{CH}_2\text{COOX}$ to form a metal complex of formula I with A in the meaning of radical $-\text{CH}_2-\text{O}-(\text{CH}_2)_p-\text{CHOH}-\text{CH}_2-$, or

d) reacting a triiodo- or tribromoaromatic compound of formula VIII



in which Nucleofuge stands for a nucleofuge group,
with a macrocyclic compound of formula IX



in which

R^1 and W have the above-mentioned meanings, and B^2 stands for the radical $-(CHZ^1-NHCO)_m-CHZ^2-$, and then further processing as indicated under a), such that metal complexes of formula I are obtained with A^1 in the meaning of radical $-CH_2-NR^1-CO-(CHZ^1-NHCO)_m-CHZ^2$,

then in the metal complexes, obtained according to a)-d), of ~~general~~ formula I, still present acid hydrogen atoms are optionally substituted by cations of inorganic or organic bases, amino acids or amino acid amides.

13. (Previously Presented) A process for preparing a pharmaceutical composition according to claim 6, comprising bringing into a composition said at least one metal complex

and the one or more additives suitable for use in a galenical formulation.

14. (Previously Presented) A pharmaceutical composition according to claim 6, which is in a suitable form for enteral or parenteral administration.

15. (Previously Presented) A metal complex according to claim 1, wherein A¹ stands for

-CONH(CH₂)_{2,3}NHCOCH₂NHCOCH(CH₃)-,

-CONH(CH₂)_{2,3}NHCOCH₂NHCOCH₂-,

-CONH(CH₂)_{2,3}NHCOCH₂-,

-CONH(CH₂)_{2,3}NHCOCH(CH₃)-,

-CONHCH₂CH(OH)CH₂-,

-CON(CH₃)CH₂CH(OH)CH₂-,

-CH₂OCH₂CH(OH)CH₂-,

-CONHCH₂CONHCH₂CH(OH)CH₂-,

-CH₂NHCOCH₂-,

-CH₂NHCOCH(CH₃)-,

-CH₂NHCOCH₂NHCOCH₂-,

-CH₂NHCOCH₂NHCOCH(CH₃)-,

-CH₂O(CH₂)₂NHCOCH₂-, or

-CH₂O(CH₂)₂N(CH₂CH₂OH)COCH₂-.

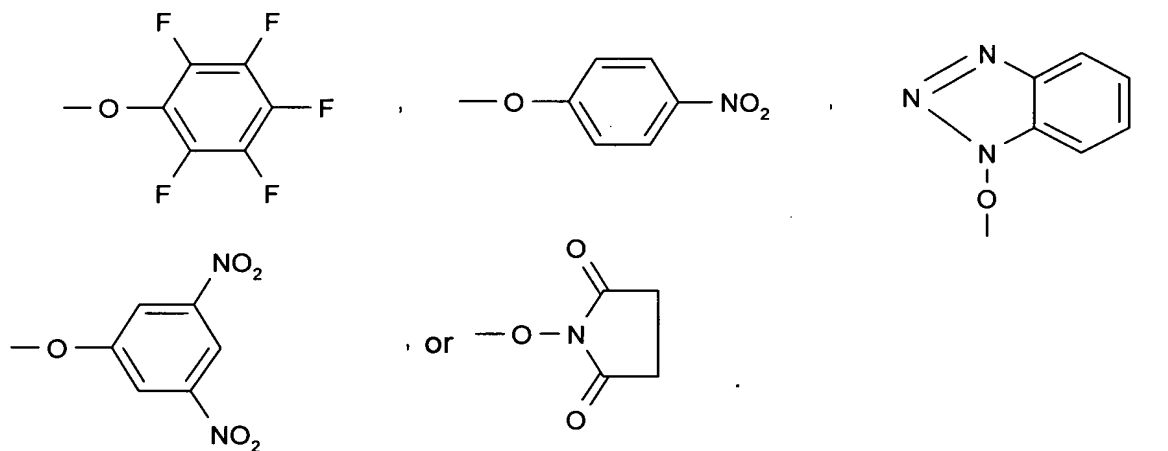
16. (Previously Presented) A metal complex according to claim 1, wherein A² stands for

-NHCOCH₂NHCOCH₂NHCOCH(CH₃)-,

$\text{-NHCOCH}_2\text{NHCOCH}_2\text{NHCOCH}_2\text{-}$,
 $\text{-NHCOCH}_2\text{NHCOCH}_2\text{-}$,
 $\text{-NHCOCH}_2\text{NHCOCH}(\text{CH}_3)\text{-}$,
 $\text{-N}(\text{CH}_3)\text{COCH}_2\text{NHCOCH}_2\text{-}$,
 $\text{-NHCOCH}_2\text{N}(\text{CH}_2\text{CH}_2\text{OH})\text{COCH}_2\text{-}$, or
 $\text{-N}(\text{CH}_3)\text{COCH}_2\text{N}(\text{CH}_2\text{CH}_2\text{OH})\text{COCH}_2\text{-}$.

17. (Previously Presented) A process according to claim 12, wherein the nucleofuge group is

F, Cl, Br, I, -OTs , -OMs , OH,



18. (Previously Presented) A pharmaceutical composition that contains a metal complex according to claim 1 in a molar ratio of 49:1 to 4:1.

19. (Previously Presented) A process according to claim 12, wherein the nucleofuge group is

F, Cl, Br, I, OH ,

